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GRAFTED NUT TREES

BENTON & SMITH
NUT TREE NURSERY
WASSAIC, NEW YORK

GRAFTED NUT TREES



Our Motto -- "Beauty Plus Utility"



Nut trees are as easy to grow as most other ornamental shade trees. Nut trees make as good shade trees as most now commonly grown, such as maples, elms, etc., and some of them make real ornamentals, as for instance, Asiatic heartnut, hickories, hickory hybrids, etc.

Nut trees are dual purpose trees: they are food producers as well as ornamental shade trees. They lend themselves to this dual role considerably better than do fruit trees; while in some cases various varieties of fruit trees make real ornamentals, their use as such is quite limited, while one can find nut trees to meet nearly all needs for ornamental shade trees.

We still do not advocate the commercial planting of nut trees in the North East, but there is no doubt as to their value when planted about the homestead. They cost little if any more than other ornamentals, while in future they will produce food crops of considerable value.

Many of the nut trees produce very valuable lumber in case they have to be removed in the future.

The nut tree nurseries are performing a very necessary part in the development of nut tree growing. Comparatively few who are interested in nut trees have the knowledge or the materials to propagate their own superior nut tree varieties. These selected superior nut tree varieties are so much better than the average seedling varieties, that for one to grow seedling trees about his homestead would be comparable to setting wild apple trees instead of well known named varieties such as McIntosh, Delicious, etc.

Most, if not all, of the nut tree nurseries are making a study of the different varieties of nut trees. We have under test at present living grafts of more than 100 different named varieties of hickories and hickory hybrids, 40 varieties of black walnuts, 6 named varieties of Persian (English) walnuts and more than 50 seedling varieties of the Crath Carpathian varieties, 8 varieties of Asiatic heartnut and several varieties of Chinese and hybrid chestnuts.

Northern nut tree nurseries are members of the Northern Nut Growers Association and through contact with the other nut enthusiasts and the study of their reports on their experiences and experiments gain much knowledge of nut tree culture and the merits of different varieties.

But we, as with other nut tree nurseries and the other nut tree enthusiasts, do not know all of the answers—we are like a band of explorers traveling through an unknown land; we do not know what lies over the next hill or around the next curve. Also, as with all travelers, each of us cannot see each detail, but very little will escape the gaze and attention of the entire body. This past winter has been such a hill with us—it has taught us that very few varieties of the Persian (English) walnuts will escape injury by temperatures as low as -34° F. (although very few of our hardy varieties suffered serious injury), whereas all varieties of Asiatic heartnuts which we have under test did not show any injury from this low temperature and blossomed and bore fruit normally this season.

THE HEARTNUT

(*Juglans Cordiformis*)

A varietal form of an Asiatic walnut. The trees are rapid growing, very ornamental, wide spreading, excellent as a lawn tree. While the shade is dense, grass grows well under it.

A real nut tree for the far North as well as for the South. It is a real ornamental, especially for the lawn; it is rather too spreading to make a real good street tree.

This past winter (1942 - 1943) we experienced the very low temperature of -34° F. yet none of the varieties of heartnut we have under test showed any injury at all. As the nuts ripen early they should succeed and mature their crops in the far North, probably anywhere in the United States and many parts of Canada.

The nuts of the better varieties, such as we offer, are easy to crack, the kernels being easily extracted, a high percentage in whole halves. In flavor it is unlike any of the nuts which at present can be bought on the market. It is very similar in flavor and shape of kernel to the butternut.

The trees bear young, first nuts usually appearing the third or fourth season from grafting. Thus the trees you set out will usually bear a few nuts the second or third year after planting.

The only serious obstacle we have observed so far in growing heartnuts is the injury caused by the butternut curculio. While the curculio does no injury of consequence to the tree itself, it will, if in any considerable numbers, destroy the crop of nuts.

Sometimes heartnuts, Persian (English) walnuts and butternuts are attacked by the butternut curculio. The larva are found inside the main stems of the new growth, also in the fleshy part of the leaf stems. Infected stems will show dark brown refuse about the entry hole.

The U. S. Department of Agriculture, Bureau of Entomology suggests the use of lead arsenate at the rate of 6 pounds to 50 gallons of water, to be used as a spray. As this is a very strong solution there is some danger of arsenical injury to the trees so we suggest that two or three pounds of hydrated lime for each pound of arsenate of lead, be added to the spray mixture.

Spray in the early spring as soon as the buds have well opened so as to kill the adult beetles before they lay their eggs. The new growth will need to be kept covered by repeated sprayings about a week apart; probably three or four sprayings will be enough unless you have a nearby source of infection. Spray any butternut trees growing nearby, or if they are of no value remove them if possible. Do not spray unless you actually have the curculio.

We do not recommend the planting of heartnut, Persian (English) walnut or improved butternut trees within one-fourth mile of a woodland or any considerable number of wild butternut trees. We do not know how wide-spread the butternut curculio is. If it does not appear in your locality you will not need to worry about it until such time as it does appear.

PERSIAN (ENGLISH) WALNUTS

(*Juglans regia*)

The Persian (English) walnut as previously grown in the Eastern United States has been imported from England, France, Germany, etc., and has not proven hardy where winter temperatures fall to below -10° F. This has held its range to southern Pennsylvania, southern New Jersey and further south.

THE CRATH CARPATHIAN PERSIAN (ENGLISH) WALNUTS

This class of Persian (English) walnuts is named after the Rev. Paul C. Crath, who was born in the Russian Ukraine. He is a graduate of two European Universities and one in North America. For seven years (1925-1933) he was a missionary in the Carpathian Mountains of Poland. He became much interested in walnuts growing in these mountains. In 1929 there was a very severe winter all over Europe, in the Carpathian Mountains of Poland the temperatures remaining as low as -40° to -49° F. for over two months. The peasants took their cows, pigs, etc., into their huts to keep them from freezing to death. Nearly all plum and many apple trees were killed, but the walnut trees suffered less than any of the fruit trees.

In 1934 money was raised by interested nut tree growers in the United States and Canada, to send Rev. Crath to Poland to select Persian (English) walnuts for introduction into the Northern United States and Canada. He selected only high quality nuts from trees that showed no injury from the 1929 winter. The importation of these nuts continued for several years, but now of course the war has put a stop to it. It is hard to guess at this time what may have happened to those trees in Poland; they may be gun stocks now.

The Carpathian Persian (English) walnut and the Circassian walnut are synonymous. The Circassian walnut is valued in the furniture industry higher than mahogany.

The Carpathian Persian (English) walnut makes large fairly fast-growing trees. In the majority of cases the quality of the Carpathian walnuts is superior to that of the California English walnuts.

In 1936 we purchased two pounds of the nuts imported from Poland that winter; from these we have about 50 seedlings growing and have started grafting from these seedlings onto black walnut stocks. We are not trying to sell any of these grafts until they begin to bear, so that we can judge of their merits.

This past winter we had a real test as to the hardiness of our Carpathians, as on the morning of February 16th we experienced the low temperature of -34° F. With our named varieties, all last year's grafts in the nursery were killed, but with our older grafts, only one, Crath No. 1, was killed outright. However all suffered some damage, not really serious, as it killed the wood (or possibly only the buds) back only to the two or three year old wood, from which dormant buds started and the trees have made good growth, so that in two or three years there will very likely be no visible sign of the injury. Of course the nut crop was eliminated and would have been on older trees. We will discontinue to propagate the Crath No. 1.

Our seedling varieties under test, showed considerable more hardiness as none were killed outright. The damage ranged from about that of the named varieties to no visible signs of injury at all; one variety bloomed normally and would have borne nuts if we had had pollen to fertilize the blossoms. We are making records of the degree of injury to each variety so that later their hardiness can be considered in the evaluation of the merits of each variety.

BROADVIEW PERSIAN (ENGLISH) WALNUT

This variety originated from a nut brought over from Russia and planted in British Columbia. The original tree has withstood temperatures of -25° F. and a grafted tree of this variety, grown by Mr. Carl Walker of Cleveland Heights, Ohio, where the minimum temperature during the winter of 1933-34 was -26° F., showed only slight injury which did not seriously damage the tree. This nut is of good size, thin shell and as good or better than the best of the California English walnuts.

This past winter the Broadview came through the winter just about the same as the named varieties of Carpathians did, i. e., killed back into the two year old wood, but made good growth this summer.

THE HICKORY

Probably no nut holds as high a place in the affections of those who have gathered wild nuts and cracked them by the fireside, as the hickory, except possibly the American chestnut which is now practically extinct.

THE SHAGBARK HICKORY

(*Carya ovata*)

A good ornamental; while its leaves do not color as well as some of the other hickories yet its stately upright growth, with its shaggy bark, is an indispensable part of our landscape. In flavor of nut it is no doubt the best of any of the hickories.

THE HICKORY HYBRIDS

While they should not supercede the shagbark as an ornamental they do supplement it. In stately upright growth they strongly resemble the shagbark and are more rapid in growth. The foliage colors somewhat better in Fall. But they lack that shaggy bark which is so well associated with the hickory.

We have had many inquiries for hiccan (pecan X other hickory) trees. We are testing several varieties of hiccans but have not tried to grow any trees for sale as we fear that most of our trade is located too far North for the present varieties of hiccans.

We have several hiccan seedlings growing which we have produced by pollinizing some of our native hickories with northern pecan pollen; most of them are from Major pecan pollen with a few from Busseron pollen. We hope that some of these will mature their nuts this far North.

While we have more than a hundred different named varieties of hickory and hickory hybrids growing in our test orchard, we are at present propagating for sale only a few of the very best varieties which we are sure will mature their crops in this climate and from which the nuts crack well, many of the kernels coming out in whole halves.

THE BLACK WALNUT

(*Juglans nigra*)

While the black walnut is probably of least value as an ornamental it does make a good roadside tree and is the surest producer of large crops of nuts, having fewer insect and other enemies than any of the other nut tree species. The superior varieties which we offer crack well, a large percentage of the kernels coming out in whole quarters. As with the hickories, while we have a good many varieties under test, we offer for sale only those varieties which we are sure will mature their crops in the Northeast.

There is little doubt that after trees are established the planter will be somewhat more sure of nut crops with the hickories and black walnuts as they are native here and are sure to succeed.

We do not list or discuss varieties in this booklet because information concerning varieties is changing so rapidly that we think it better to put out a mimeographed descriptive price list each year.

SPECIAL

In addition to our regular trade we are offering a new service which we call our custom service. As stated previously we are growing a good many varieties of the different nut trees which we have not tested fully enough to warrant our propagating them regularly. Should anyone want a tree or more of any of these or of any variety of which they can supply wood, we will endeavor to propagate it for them. You will have to order previous to April 1st (or better still, March 1st) of the season in which we are to grow the trees.

A deposit of \$5.00 must accompany the order. This deposit will pay for the first tree; if more trees are desired and we are able to produce more than one tree, the price of such additional trees will be at regular prices as stated in our descriptive price list.

If the variety desired be an unnamed variety or one of which we cannot secure grafting wood, you will have to send us wood. This should be one or two year old wood of good growth (vigorous tips of branches). This wood should be cut while still perfectly dormant

and immediately wrapped in damp cloth or paper and then in waxed paper, then properly enclosed for mailing to us.

We can secure wood of most of the named varieties, but if we cannot secure wood or fail, for any reason, to successfully propagate a tree for you, we will return the deposit in full. We cannot guarantee to produce a certain kind of tree at a certain time because nut tree grafting is rather difficult and uncertain at best.



Address all orders and communications to

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